Genus Datasheet

atasheet No. A-140.002 **DBT- Network Programme**
(Family.Genus)

1. Genus:*Vigna*Savi

3.Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: FabalesBromhead
- Family: FabaceaeLindl.
- Subfamily: Faboideae Rudd
- Genus: *Vigna* Savi

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: Rosales Bercht. & J. Presl
Ordo: LeguminosaeJuss.
Subordo: PapilionaceaeGiseke
Genus: *Vigna* Savi

3. Species:

Global: ~ 108

India:

4. Taxonomic riddles: [12]

5. Distribution:

Global: America, Asia, and Australia

India: Most parts of India

6. Habit and Habitat: Herbs; seasonally dry tropical woodland, wooded grassland and grassland, often in well drained sites with low fertility, sandy or stony sea shores

7.Economic Importance: Many species are major pulse, vegetable, fodder, green manure crops

8. DNA content range:	**Methodology**
2C (2.60- 4.95pg)	Microdensitometer [14]

9. Basic chromosome number(s):x=11[1,2,25]

10. Zygotic chromosome number(s):2n=22 [1- 6,11,14,15,25 -38,69,71,74,76,77,78,79,93,94,125,132,154

2n=20[150,151, 152]

2n=44 [4,5,14,25,73]

11. Gametic chromosome number(s):n=11[4,79,154,155]

n=22 [4,73]

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene Chromosomes/ Neocentric chromosomes):B chromosomes [4]

13. Ploidy level: Diploid[1- 6,11,14,15,25 -38,69,71,74,76,77,78,79,93,94,125,132,154]

Tetraploid[4,5,14,25,73]

14. Nature of polyploidy (auto, segmental, allo, autoallo): Allotetraploid[147]

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty):

16. Karyograms: [1,2,3,6,11,15,25,27,29,34,37,38,69,71,74,77,78,94,132]

Meiosis: [4,73,79,154]

17. Banding pattern(s):CMA/DAPI banding[5,36,37,69,76,78,93] ; C-banding [28,29,36,125]

GISH:[6]

19.Phylogenetic relationship atChromosomal; DNAlevel:

Chromosomal level[6]

DNA level[7,10,12,60,68, 98,124,141-144,153]

20. Cytogenetic mechanism (s) underlying evolution: Poorly understood. There is near uniformity in chromosome shape and size between the chromosome complements of *Vigna* taxa, and in the details of male meiosis. Barring allotetraploid *V. glabrescens* (2n = 4x = 44) all other taxa are diploid (2n = 2x = 22) in constitution.

21. Linkage map:[16-18,39-43,70,80,81,95-97,126,156]

22. Any other information: Chromosome number not reported in the following taxa-

Vignaangularis var. *nipponensis* (Ohwi) Ohwi&Ohashi
Vignabourneae Gamble
*Vignaclarkei*Prain
Vignagrahamiana (Wight &Arn.)Verdc.
Vignahosei(Craib)Backer
Vignamukerjianus (Raizada) Raizada
*Vignaprainiana*Babu& S.K. Sharma
Vignariccardiana (Tenore) Babu& Sharma
Vignariccardiana var. *macrocarpa* (Prain)Naithani& S. Biswas
*Vignariccardiana*var. *riccardianus*
Vignatrilobata var. *pusilla*Naik&Pokle
Vignatrilobata var. *trilobata*
*Vignavexillata*var.*angustifolia* (Schum. &Thonn.)Baker
*Vignavexillata*var.*sepiaria* (Dalzell) Babu& S.K. Sharma
Vignavexillata var. *stocksii* Baker
Vignavexillata var. *vexillata*
Vignavexillata var. *wightii* (Baker) Babu& S.K. Sharma
*Vignakonkanensis*Latha K.V.Bhat, I.S. Bisht, Scariah, Josephjohn&